Claims

What is claimed is:

1. System for evaluating and recommending digital image print size comprising:
   a user interview means for specifying an image file, a requested print size width and height, and an image type;
   an image reader means for determining the pixel dimensions of an image in said image file;
   a first evaluation means for determining print pixel density of said image at said requested print size, and determining acceptable viewing distance based on a predetermined relation of viewing distance to print pixel density for each image type;
   a second evaluation means for determining if the requested print size alters the aspect ratio of said image by more than a predetermined amount; and
   a display means for showing results of the evaluations
   whereby quality issues arising from users attempting too much enlargement are minimized, and delay when requesting such enlargements from a print service is eliminated.

2. System for evaluating and recommending digital image print size as claimed in claim 1 wherein

said display means produces a conspicuous warning if viewing distance exceeds a predetermined amount

whereby user is encouraged to request a print size with which user is more likely to be satisfied.

3. System for evaluating and recommending digital image print size as claimed in claim 1 wherein

said interview means allows requested print size to be omitted; and

said first evaluation means produces a print size recommendation based on a predetermined viewing distance

whereby a user who is uncertain how much enlargement to request obtains a useful maximum estimate.

4. System for evaluating and recommending digital image print size as claimed in claim 3 wherein

said interview means allows the specification of only one of requested print size width and height; and

said first evaluation means produces a print size recommendation maintaining the aspect ratio of the image and determines acceptable viewing distance

whereby the user is relieved of having to make aspect ratio calculations.

5. System for evaluating and recommending digital image print size as claimed in claim 1 wherein

said display means shows the image scaled to the approximate requested print size

whereby the user can obtain an approximate visual representation of print quality.

6. System for evaluating and recommending digital image print size as claimed in claim 5 wherein

said interview means provides for determining the scaling characteristics of the said display means

whereby the user can adjust the scaled display according to the characteristics of a display device to more accurately approximate requested print size.

7. System for evaluating and recommending digital image print size as claimed in claim 1 wherein

said user interview means allows specification of an image type that contains sharp lines and lettering; and

said first evaluation means increases the recommended viewing distance by a predetermined amount when the image contains sharp lines and lettering

whereby an appropriate recommendation is made for images containing non-photographic design matter.

8. System for evaluating and recommending digital image print size as claimed

in claim 1 wherein

said user interview means allows specification that the image file was generated by scanning a photograph, and provides for the specification of scan density and original photograph size; and

said first evaluation means determines the recommended viewing distance using an estimate of effective print pixel density based on the minimum of the file print pixel density, scanning print pixel density, and source print pixel density computed using a predetermined estimate of the equivalent pixel density of photographic paper

whereby an appropriate recommendation is made for over-scanned and under-scanned images.

9. System for evaluating and recommending digital image print size as claimed in claim 1 further comprising

an order information collection means for specifying user address and payment information;

a first communication means for transmitting user print request, file, evaluation, address and payment information to a print service provider;

a second communication means for transmitting the image file being evaluated to a print service provider; and

a payment authorization means for assuring the user payment will be completed if said service provider accepts said print request

whereby the results of the evaluation and recommendation are automatically recorded with the user's order and service provider may proceed with confidence in payment and user satisfaction, without having to make refund credits or collect secondary payments if changes are necessary to the print request.

10. System for evaluating and recommending digital image print size as claimed in claim 9 wherein

said user interview means is an HTML form in a web page;

said image reader means is a DHTML web page which uses a web browser to display the file and obtains pixel dimensions using script commands;

said first evaluation means is a web page script stored on a web host and running within a web browser on the user's computer;

said second evaluation means is a web page script stored on a web host and running within a web browser on the user's computer;

said display means is a DHTML web page;

said order information collection means is an HTML form in a web page;

said first communication means is a web based common gateway interface to a database on a web host computer for recording said information in combination with email for providing rapid notification to the service provider;

said second communication means is a web based file upload means for storing the image file on a web host computer and an email

means for providing rapid notification to the service provider; and

said payment authorization means is a common gateway interface to a payment gateway provider

whereby the entire system is implemented using reliable web based infrastructure and resources that the service provider can obtain at low cost.

11. System for evaluating and recommending digital image print size as claimed in claim 10 wherein

said user interview means, said first and second evaluation means and said display means are a single HTML frameset

whereby the interview means is continuously available for making changes as results are displayed and communication among the interview, evaluation and display means is simplified.

12. System for evaluating and recommending digital image print size as claimed in claim 10 wherein

a target page automatically records coded link information revealing the source of the user's referral to the system for evaluating and recommending digital image print size;

an order precursor page retrieves the coded link information and transmits this to said order information collection means;

said first communication means transmits coded link information to said database on said web host computer;

whereby a print service provider may monitor and optimize the effectiveness of paid referrals.

13. Method for evaluating and recommending digital image print size comprising the steps of:

interviewing a user to select an image file and specify requested print size width and height;

reading an image file to determine the pixel dimensions of the image;

determining acceptable viewing distance based on a predetermined relation of viewing distance to pixel density;

determining if the requested print size would alter the aspect ratio of the image by more than a predetermined amount; and

displaying the results of the determinations.

14. Method for evaluating and recommending digital image print size as claimed in claim 13 further comprising

recommending a maximum print size;

warning if requested print size aspect ratio differs from image aspect ratio by more than a predetermined amount; and

warning if said acceptable viewing distance is larger than a predetermined amount.

15. Method for evaluating and recommending digital image print size as claimed in claim 14 further comprising

recording order information including requested print size, file name, shipping address, and user payment information;

transmitting order information to a print service provider; and

transmitting the image file to said print service provider.

16. Method for evaluating and recommending digital image print size with overlapped file upload comprising the steps of:

interviewing a user to select an image file and specify requested print size width and height;

uploading the image file to an online storage while continuing with the following steps;

evaluating the image file print quality at the requested size and displaying the results;

obtaining order information associated with the specified file from the user;

authorizing payment based on the order information; and

recording the order and payment authorization information in the online storage.